REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed January 28, 2008. Claims 1, 3-4, 7-8 and 12 stand rejected as allegedly anticipated by Kullik DE 19904119 A1 with reference to Kullik US 6,418,927. Claims 1, 5, 7, 9 and 12 stand rejected as allegedly anticipated by Dunning et al. US 3,951,573. Claim 6 stands rejected as allegedly being unpatentable over either Kullik or Dunning et al. Claim 10 stands rejected as allegedly unpatentable over Dunning et al. in view of Brunet US 6,350,109.

Claim 12 stands rejected as unpatentable over Kullik in view of Brunet further in view of Lee, et al. US 6,336,986 (see Office Action, Section 11, pages 7-8). Applicant notes that claim 11 is not specifically rejected. Applicant assumes, however, that this rejection of claim 12 under Section 103(a) is intended to refer instead to claim 11.

Reconsideration and allowance of the application and the rejected pending claims are respectfully requested in view of the following remarks.

1. Claim Rejections Under 35 U.S.C. 102(a)

Independent claim 1, as previously presented, recites (emphasis added):

A compressor unit, comprising:

a centrifugal compressor for compressing a gas and an electric motor having a stator and a rotor for driving the compressor, the compressor and the electric motor being accommodated in a common gastight housing which is provided with a gas inlet and a gas outlet, the stator being accommodated in a separate stator space, which is delimited by a wall section, surrounding the stator, of the housing of the compressor unit, a gastight partition which extends between the stator and the rotor of the electric motor, and at least one end wall which extends between the partition and the housing of the compressor unit, wherein the partition extends freely between the stator and the rotor of the electric motor and comprises a material of sufficiently high strength for it to remain clear of the stator and the rotor under working pressures of the gas which may occur inside the housing, ***wherein the high-strength material of the partition comprises a fibre-reinforced plastic.***

Claim 12 recites a method of compressing air using a compressor unit, the compressor unit including a partition that comprises a high-strength material of a fibre-reinforced plastic.

Accordingly, both claims 1 and 12 recite a partition comprised of a fibre-reinforced plastic material. Neither of the cited references presented teaches a partition comprised of a material recited in the claims. Claims 1 and 12 are, therefore, not anticipated by either reference. These claims should be considered to be new and inventive, particularly according to the nature of the different problems addressed and solved.

Kullik (US 6,418,927) teaches a centrifugal compressor for respiration systems of the kind being used in hospitals to aid human respiration. The problems to be solved by Kullik are sterilization and separation of the breathing gas from the electrical components (see, column 1, lines 31-35). Compared to the centrifugal compressors described in the present application Kullik's units are very small, deal only with a very low pressure of the fluid and do not have to operate in a hostile environment like low temperature, or high pressure under seawater. There can be no doubt that except for the compression of gases there is no real link between the respective technologies and the fields of application. For example, a supplier of submarine compressors for exploitation of natural gas resources would not be involved in the supply of a medical respiration system. Therefore a person with ordinary skill in the art would not look to Kullik to come up with the object recited in claim 1 or the method of claim 12 of the present application.

Applicant respectfully disagrees with the description of the teaching of Kullik in the Office Action. The Office Action cites column 3, lines 11-22, as supporting a teaching of a partition 9 comprising a material of sufficiently high strength for it to remain clear of the stator 3 and the rotor 2 under working pressures. Column 3, lines 11-22, however, states nothing about working pressure or a desirability to operate under working pressures. Instead, it simply states that a lubricating wedge in the can 9 is arranged in the working gap between the permanent magnet 2 (rotor) and the stator 3 such that the rotor and stator are separated from one another in a completely wear-free manner.

Further, the Office Action takes the position that in column 3, lines 61-64, Kullik discloses a partition comprising a fibre-reinforced plastic. Neither in the cited passage of Kullik, nor anywhere else in Kullik, is a fibre-reinforced plastic material taught or suggested for a partition of a compressor unit. Kullik only discloses that: "The radial sealing brought about by the can must be able to be magnetically fluxed and must not be electrically conductive, so that

no eddy currents are generated. Ceramic and/or plastics are preferred materials." Therefore a person with ordinary skill in the art would not deduce this object of claims 1and 12 from Kullik.

Dunning et al. (US 3,951,573) describe a centrifugal compressor with a partition wall between the stator of the motor and the rotor. Contrary to the statement in the Office Action a fibre-reinforced plastic material is not disclosed. The Office Action cites to column 3, lines 18-35, to support the position that Dunning et al. disclose a partition comprised of a fibre-reinforced plastic. This citation does not support the Office Action's position. Dunning et al. disclose only that the diaphragm 33 positioned between the rotor shaft 15 and the stator 29 may be made of any metal preferably having a high electrical resistance such as Monel or nichrome metal, or may be made of a suitably attached non-conductor. In cases, where the gas being pumped is non-corrosive and there is no need to protect the stator of the windings from the gas being pumped, Dunning et al. teach it will usually be desirable to omit the diaphragm. Where, on the other hand, the gas being pumped is corrosive, the diaphragm prevents the gas from coming into contact with the stator, and the armature as well as other parts of the rotor may be made of a corrosion resistant material, so that there will be no danger of damage to the motor or other parts of the unit due to the corrosive action of the gas.

Because independent claims 1 and 12 are allowable over both Kullik and Dunning et al., in the case of Kullik dependent claims 3-5 and 7-8, and in the case of Dunning et al. dependent claims 5, 7 and 9, are allowable as a matter of law for at least the reason that the dependent claims contain all elements of their respective base claim. See, *e.g.*, *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

2. Claim Rejections Under 35 U.S.C. 103(a)

Applicant respectfully submits that neither Kullik nor Dunning et al. render claim 6 obvious. As noted above neither teaches a partition comprised of high-strength fibre-reinforced plastic material. Further, neither recognizes nor is directed to solving one of the problems solved by the present application, namely, providing a partition which is able to absorb relatively high pressure differences.

With respect to claim 10, Brunet et al. (US 6,350,109 B1) discloses only that a jacket separating the stator interior from the space between the stator and the rotor can be made of stainless steel, an alloy of the Hastelloy alloy family or titanium or of a composite material, which

might be treated against corrosion. This reference, however, also does not disclose inclusion of any fibre-reinforced plastic material. Nor do Brunet et al. teach or suggest a partition having an inner layer and an outer layer as recited in claim 10. Brunet et al. in combination with Dunning et al., therefore, cannot render claim 10 obvious. Their combination would not result in all of the features recited in Claim 10.

Claim 11 deals with a method of producing a partition of a compressor unit wherein the high-strength material of the partition comprises a fibre-reinforced plastic, which method basically requires the features of at least claim 1, especially the fibre-reinforced plastic, which is not disclosed in any of the cited references discussed above. Nor is this feature taught by Lee et al. (US 6,336,486). Thus the combination of the references, assuming their teachings are combinable, would not render obvious this feature of claim 11.

Additionally, Lee et al. do not disclose the fitting of a partition wall structure comprising several layers by having a temporary thermal dilatation of, for example, the outer wall to obtain sufficient fitting clearances. Instead Lee et al. teach to use a thermal shrinking tube to be fitted over a composite material layer and heated up to compress the composite material layer to obtain desired material properties. Obviously the Lee et al. method to use a thermal shrinking tube is totally different to the one proposed in the patent application, especially with respect to the order of, for example, heating up and fitting afterwards. The thermal shrinking tube in Lee et al. is altered in diameter by a memory effect and not by a thermal expansion mechanism as recited in claim 11.

Additionally, the method disclosed by Lee et al. is directed to non-analogous art. The disclosure of Lee et al. relates to a drive shaft of an automobile. It has nothing to do with a compressor unit. A person of ordinary skill in the art of compressor units would not look to Lee et al. to address the problems addressed by the present claims. Thus, Lee et al. is not combinable with the teachings of the other cited references.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully Submitted,

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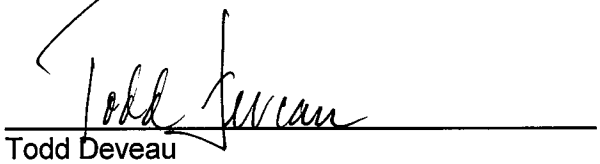
By: 

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